

IN THE CLAIMS

Please amend claims 1, 2 and 12 by this amendment and newly add claims 22 through 24 by this amendment as follows:

1 1. (Currently Amended) A plasma display panel, comprising:
2 a first and a second transparent substrate opposing one another;
3 a plurality of first electrodes arranged in parallel and arranged on the first transparent
4 substrate;
5 a plurality of second electrodes arranged in parallel and arranged on the second
6 transparent substrate, the second electrodes being arranged perpendicular to the first
7 electrodes; and
8 a plurality of concave portions arranged in said second transparent ~~plate~~ substrate,
9 each concave portion corresponding to a concave surface, wherein corresponding ones of
10 said plurality of second electrodes are arranged at bottoms of corresponding ones of said
11 plurality of concave portions, with ridges arranged between adjacent concave portions, each
12 ridge having a top surface being of a water repellant film.

1 2. (Currently Amended) The plasma display panel of claim 1, wherein each second
2 electrode comprises a flat top surface that extends from a first point of each concave surface
3 to a second point of said concave surface, each second electrode comprises a convex bottom
4 surface that mates with an entire portion of said concave surface between said first point and

1 said second point, said convex bottom surface of each second electrode meets with said flat
2 top surface of said second electrode at said first and said second points of said concave
3 surface.

1 3. (Previously Presented) The plasma display panel of claim 1, wherein each second
2 electrode comprises a flat top surface that is parallel to said top surface of each ridge, said
3 top surface of each second electrode being bounded by said concave portions.

1 4. (Original) The plasma display panel of claim 1, further comprising phosphor
2 material within said concave portions, said phosphor material being on top of the second
3 electrodes.

1 5. (Withdrawn) A method of manufacturing a plasma display panel, comprising:
2 forming concave sections on a first surface of a transparent substrate;
3 supplying a conductive liquid material comprising conductive particles to the concave
4 sections;

5 keeping still the transparent substrate with the conductive liquid material thereon to
6 cause the conductive particles in the conductive liquid material to precipitate to a bottom
7 surface of each concave section; and

8 heating the transparent substrate with the precipitated conductive liquid thereon to
9 form electrically conductive electrodes at the bottom of each concave section from the

precipitate at the bottom of each concave section.

6. (Withdrawn) The method of claim 5, further comprising forming on the first surface of the transparent substrate a liquid repellent layer having liquid repellency with respect to the conductive liquid material, the formation of the liquid repellent layer being performed before forming the concave sections, said liquid repellent material being present between adjacent concave sections after the formation of the concave sections.

7. (Withdrawn) The method of claim 5, wherein in the process of supplying the conductive liquid material, the conductive liquid material is deposited on the first surface of the transparent substrate to fill the concave sections with the conductive liquid material.

8. (Withdrawn) The method of claim 5, wherein in the process of supplying the conductive liquid material, a supply apparatus is used to supply the conductive liquid material to fill the concave sections with the conductive liquid material.

9. (Withdrawn) The method of claim 5, further comprising the step of depositing a phosphor layer within the concave sections on top of the electrically conductive electrodes arranged within the concave sections.

10. (Previously Presented) A plasma display panel, comprising:

2 a first and a second transparent substrate facing one another;
3 a plurality of first electrodes arranged in parallel on the first transparent substrate;
4 a plurality of second electrodes arranged in parallel on the second transparent
5 substrate, the second electrodes being arranged perpendicular to the first electrodes; and
6 a plurality of concave sections arranged in said second transparent plate, wherein ones
7 of said plurality of second electrodes being arranged at a bottom of corresponding ones of
8 said plurality of concave sections, each concave section having a concave surface, wherein
9 each second electrode having a flat top surface that extends from a first portion of the
10 concave surface to a second portion of the concave surface, each second electrode having a
11 bottom surface that mates with an entire portion of the concave surface between said first
12 portion and said second portion, said bottom surface of each second electrode being convex,
13 said bottom surface of each second electrode joins said top flat surface at said first and said
14 second portions of said concave surface.

1 11. (Original) The plasma display panel of claim 10, further comprising a protrusion
2 protruding upward from a bottom of said concave surface, wherein a first portion of said
3 second electrode being on a first side of said protrusion and a second portion of said second
4 electrode being on a second and opposite side of said protrusion, said first and said second
5 portion of said second electrode being physically and electrically separated from each other
6 by said protrusion.

1 12. (Currently Amended) The plasma display panel of claim [[10]] 11, wherein a
2 height of each protrusion is less than one half of a depth of each concave section.

1 13. (Previously Presented) The plasma display panel of claim 11, wherein ridges are
2 arranged between adjacent concave sections, each ridge having a top surface made of a water
3 repellant film.

1 Claim 14. (Canceled)

1 15. (Withdrawn) A method of manufacturing a plasma display panel, comprising:
2 forming and patterning a resist film on a first surface of transparent glass substrate;
3 forming, simultaneously, concave sections and the protrusions within the concave
4 sections in the first surface of the transparent substrate using the resist film;
5 supplying a conductive liquid material comprising conductive particles to the concave
6 sections; and
7 maintaining the conductive liquid still to precipitate the conductive particles from the
8 conductive liquid to a bottom of the concave sections arranged in the first surface of the
9 transparent substrate, wherein conductive particles do not form on the protrusions in the
10 concave sections; and
11 heating the precipitated conductive particles to form second electrodes in each of the
12 concave sections, wherein said second electrodes do not form on said protrusions.

1 16. (Withdrawn) The method of claim 15, further comprising forming on the first
2 surface of the transparent substrate a liquid repellent layer having repellency with respect
3 to the conductive liquid material, the formation of the liquid repellent layer being performed
4 before forming the resist film, the liquid repellent layer being present in spaces between
5 concave sections after formation of the concave sections and after formation of the
6 protrusions.

1 17. (Withdrawn) The method of claim 15, wherein in the process of supplying the
2 conductive liquid material, the conductive liquid material is deposited on the first surface
3 of the transparent substrate to fill the concave sections with the conductive liquid material.

1 18. (Withdrawn) The method of claim 15, wherein in the process of supplying the
2 conductive liquid material, a supply apparatus is used to supply the conductive liquid
3 material to fill the concave sections with the conductive liquid material.

1 19. (Withdrawn) The method of claim 15, further comprising depositing a phosphor
2 layer in each concave section on top of said second electrodes.

1 20. (Withdrawn) The method of claim 5, the plasma display panel comprises:
2 the transparent substrate being a second transparent substrate;

3 a first transparent substrate facing the second transparent substrate;
4 a plurality of first electrodes in parallel arranged on the first transparent substrate;
5 the electrically conductive electrodes formed from the conductive liquid material
6 being second electrodes in parallel to each other and arranged on the second transparent
7 substrate, the second electrodes being arranged perpendicular to the first electrodes; and
8 the concave sections formed in said second transparent plate, each concave section
9 corresponding to a concave surface, wherein corresponding ones of said plurality of second
10 electrodes are arranged at bottoms of corresponding ones of said plurality of concave
11 sections, with ridges arranged between adjacent concave portions, each ridge having a top
12 surface made of a water repellant film.

1 21. (Previously Presented) The plasma display panel of claim 1, the plasma display
2 panel being manufactured by a process comprising:

3 forming the concave portions on a first surface of the second transparent substrate;
4 supplying a conductive liquid material comprising conductive particles to the concave
5 portions;

6 keeping still the second transparent substrate with the conductive liquid material
7 thereon to cause the conductive particles in the conductive liquid material to precipitate to
8 a bottom surface of each concave portion; and

9 heating the second transparent substrate with the precipitated conductive liquid
10 thereon to form the second electrodes at the bottom of each concave portion from the

11 precipitate at the bottom of each concave portion.

1 22. (New) A plasma display panel, comprising:
2 a first and a second transparent substrate opposing one another;
3 a plurality of first electrodes arranged in parallel on the first transparent substrate;
4 a plurality of second electrodes arranged in parallel on the second transparent
5 substrate, the second electrodes being arranged perpendicular to the first electrodes; and
6 a plurality of concave portions arranged in said second transparent substrate, each
7 concave portion corresponding to a concave surface, wherein corresponding ones of said
8 plurality of second electrodes are arranged at bottoms of corresponding ones of said plurality
9 of concave portions, wherein each of said second electrodes has a convex bottom surface that
10 mates with corresponding ones of said concave surfaces of said second transparent substrate,
11 each of said second electrodes having flat top surfaces that is absent of any curve.

1 23. (New) The plasma display panel of claim 22, said first transparent substrate
2 having a flat inner surface, the plurality of first electrodes being arranged on said flat inner
3 surface, the flat top surfaces of each of said second electrodes being parallel to said flat inner
4 surface of said first transparent substrate.

1 24. (New) The plasma display panel of claim 1, the water repellant film comprising
2 silicon dioxide.